Introduction:

These comments are in response to ET Docket 10-98, RM-11353.

I am Glenn Thomas, holder of FCC Amateur Radio station license WB6W and an Amateur Radio Extra Class operator license. In this capacity, I have been utilizing the 60m band since it first became available in 2003 in pursuit of the basis and purpose of the Amateur radio service.

Summary:

The proposed rules change is well motivated. However it has several serious flaws in its implementation and needs to be reconsidered.

In summary, the inclusion of digital emissions on all channels is unwise because of the basic incompatibility of the digital emissions with analog voice emissions.

Time limits on the use of digital modes may not be practical.

The restriction of narrow bandwidth digital signals to the center of USB channels is not spectrum efficient and needs to be reconsidered. The wider bandwidth 2K80J2D ("Pactor-III") mode signal, if allowed at all, should be restricted to a single channel due to its relatively wider bandwidth, the small number of users and limited to channel center so that narrower digital modes can also share the channel.

The increase of allowed ERP from 50 watts to 100 watts is in line with the current standards for transmitters in the Amateur service and should be adopted.

The proposed requirement to use voice activated operation (?VOX?) instead of leaving the choice to the operator is ill conceived and should be deleted.

The inclusion of Automatic Link Establishment (?ALE?) on 60m is a larger issue and ought to be addressed in a separate proceeding that addresses Amateur radio ALE operation in general.

Discussion:

I am in agreement with paragraph 8 of the instant proposal to replace the 5368 KHz assignment with 5358.5 KHz to avoid interference to and from a primary user.

The paragraph 9 of the instant proposal to allow digital modes, specifically 150HA1A ("CW"),

60H0J2B ("PSK31") and 2K80J2D ("Pactor-III"), on all five frequencies is ill-conceived because 2K80J3E (?upper side band? or ?USB?) is incompatible with the proposed digital modes on a co-channel basis, especially in a scenario where long periods of operator time may be spent listening for a call. An acceptable alternative would be to limit the digital modes to only two channels. This would allow the proposed digital modes to be available without the risk of rendering all five channels unusable for USB operations.

In paragraph 10 of the instant proposal the Commission requests comments on the possibility of time limits for digital modes. A practical matter arises from the fact that some digital modes, Pactor-III in particular, are not commonly utilized by many stations in the Amateur Radio service, making it difficult for the average Amateur licensee to be able to discern a difference between an Amateur 2K80J2D emission and a primary user signal without making a significant financial investment in Pactor-III hardware and software. If 2K80J2D were allowed on the frequencies as proposed, it would tend to make these frequencies less useful to the balance of the Amateur community that does not use the 2K80J2D emission. This would have the effect of reducing the value of the band to the Amateur service in general by impeding its utilization for fear of interfering with a primary user.

An addition reason for severely restricting the use of Pactor-III on the frequencies in question is that the operator does not have direct control over when and for how long a transmission is made because this is controlled by software. The software cannot discern the difference between channel noise and a non-Pactor-III signal and so is likely to interfere with transmissions in the other proposed and existing modes. This is not an issue on the other frequencies allocated to the Amateur radio service, which are not channelized, because operations can easily shift to a different frequency. This is not the case in the 60m band, thus the authorization for the Amateur radio service to use 2K80J3E (Pactor-III) on channels in the 60m band should be restricted to one channel at most.

The proposed new text for 97.303(h) is needlessly restrictive with respect to frequency for digital emissions. Specifically, the bandwidth needed for 150HA1A ("CW"), 60H0J2B ("PSK31") is much smaller than that allocated to the Amateur service. If the CW or PSK31 stations are to efficiently utilize the available spectrum, they need to be authorized to operate anywhere within the allocated channel. In this manner, assuming an allocated 2.7 KHz channel bandwidth, +/- 100 Hz frequency accuracy in the Amateur emitter (easily achieved by most modern Amateur transmitters), as many as 25 CW/PSK31 subchannels (plus two 100 Hz guard bands at either end of the channel) might share a single channel. This would provide much more efficient spectrum utilization than the proposed regulation. It would also allow digital signals to be restricted to one or two of the existing 60m channels without affecting the USB voice operations on the other channels and still provide multiple digital communications channels.

In paragraph 11 of the instant proposal the Commission suggests that the allowed power output be raised to 100 watts. I support this change because most transmitters utilized by the Amateur radio service are designed for this power level.

Also in paragraph 11 of the instant proposal the Commission requests comments on requiring the use of ?VOX?, or voice operated transmit, on the 60m band. In the instant proceeding, the commission has expressed concerns about the potential for inadvertent transmissions when used in the field. These concerns are well taken. The requirement for VOX would reduce the amount of available hardware because many transmitters utilized by the Amateur radio service, while otherwise adequate for use on the 60m channels, do not include VOX capability. Also, as the commission points out, there are many environments where VOX operation is not appropriate. Thus the current state of allowing the operator to make an informed choice between VOX or other means of transmit control is preferred and should not be changed.

In paragraph 12 of the instant proposal the Commission requests comment on the inclusion of Automatic Link Establishment (ALE) capability in the 60m band. To date, the Commission has wisely and with good reason chosen to not look very closely at ALE operation in the Amateur radio service. The proposed issue has merit but is wider in scope than the instant proposal because it applies to Amateur HF spectrum allocations in general. Thus the Commission would be well advised to consider the specific authorization of ALE capability in the Amateur radio service, with its co-channel SSB and digital emissions, in a separate proceeding.

Conclusion:

The proposed rules change is well motivated. However it has several serious flaws in its implementation and needs to be reconsidered.

The inclusion of digital emissions on all channels is unwise because of the basic incompatibility of the digital emissions with analog voice emissions. Only a subset of channels ought to be available for digital emissions.

The restriction of narrow bandwidth digital signals to the center of USB channels is not spectrum efficient and needs to be reconsidered.

The increase of allowed ERP from 50 watts to 100 watts is in line with the current standards for transmitters in the Amateur service and ought to be adopted.

The proposed requirement to use voice activated operation (?VOX?) instead of leaving the choice to the operator is ill conceived and ought to be deleted.

The inclusion of Automatic Link Establishment (?ALE?) on 60m is a larger issue and ought to be addressed in a separate proceeding that addresses Amateur radio ALE operation in general.